

# Notice of Allowability

Application No.

10/824,631

Examiner

Joseph Nguyen

Applicant(s)

PELLIZZER, FABIO

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the election filed on 12/19/2006.
2. ☒ The allowed claim(s) is/are 10-17, 19-24 and 26-37.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

***Allowable Subject Matter***

Claims 10-17, 19-24 and 26-37 are allowed.

The following is an examiner's statement of reasons for allowance:

The reference (s) of record do not teach or suggest, either singularly or in combination at least the limitation of "a memory portion of a phase change material, housed in said aperture, said memory portion being in direct electrical contact with the top surface of the vertical wall of the cup shaped resistive element and defining a contact area of sublithographic extension" for claim 10, "a memory portion of a phase change material, housed in said aperture, said resistive element and said memory portion being in direct electrical contact and defining a contact area of a first dimension of less than 100 nm and a second dimension of less than 100 nm, said second dimension being substantially perpendicular to said first dimension, wherein said memory portion is sealed inside said aperture by a sealing structure directly lying on said delimiting structure " for claim 20; "a second memory portion of phase change material in the second portion of said aperture, the second memory portion being in contact with the second resistive element and defining a second contact area of sublithographic dimension; and a sealing structure directly lying on said delimiting structure, sealing the first memory portion and the second memory portion in said aperture" for claim 24; "a phase change material in the slit and in direct electrical contact with the resistive element by a contact area, said contact area having a first dimension substantially the same as the first width of the resistive element, and a second dimension substantially the same as the second width of the slit; and a sealing

Art Unit: 2815

structure directly lying on said delimiting structure sealing the phase change material within the slit" for claim 29; "a memory portion of a phase change material housed in said aperture and sealed within the stack, said memory portion being in direct electrical contact with the top surface of the vertical wall of the cup shaped resistive element and defining a contact area of sublithographic extension" for claim 32; "a memory portion of a phase change material, housed in said aperture without exceeding the aperture, said memory portion being in direct electrical contact with the top surface of the vertical wall of the cup shaped resistive element and defining a contact area of sublithographic extension; and a sealing structure contacting the top surface of the delimiting structure and sealing the memory portion within the aperture" for claim 35.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 8:30 am- 5:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571) 272-2298. The fax phone number for

Art Unit: 2815

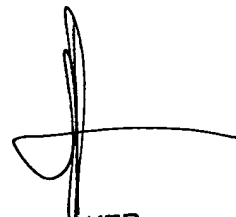
the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph Nguyen

Patent Examiner

February 10, 2007.

A handwritten signature in black ink, consisting of a stylized 'K' followed by a horizontal line.

KENNETH PARKER  
SUPERVISORY PATENT EXAMINER